DOCUMENT RESUME

ED 036 883 24 EA 002 707

AUTHOR Goldman, Samuel
TITLE "Futurists" in Education. In-Service Program for CERLI Staff, 1968-1969. Final Report.
INSTITUTION Cooperative Educational Research Lab., Inc., Northfield, Ill.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-6-1391
PUB DATE Aug 69
CONTRACT OEC-3-7-061391-3061
NOTE 54p.

EDRS PRICE EDRS Price MF-$0.25 HC-$2.80
DESCRIPTORS Bureaucracy, *Educational Change, Educational Complexes, Educational Games, *Educational Objectives, *Educational Planning, Educational Strategies, Evaluation, Inservice Programs, Management Games, Models, *Regional Laboratories, *Regional Planning, Social Change, Statistical Analysis, Student Alienation

ABSTRACT

Today an alienated generation of students is demanding change within educational institutions. In those institutions placed under pressure there has been no guiding principle or integrative philosophy behind the changes that have occurred. In recognition of this lack, a concern for long-range planning is emerging and the CERLI staff has undertaken an inservice program to develop long-range regional educational plans. The stated objectives were (1) to assist participants in developing a mind-set for examining future developments in the region, (2) to analyze the present educational posture of the region in light of projected developments, (3) to create models of alternative futures, (4) to devise viable strategies for moving toward these futures, and (5) to make recommendations to key educators and policymakers concerning the future of education in the region. Certain conclusions and recommendations followed: (1) The scope of such programs should be developed with time, resource, and personnel constraints in mind; (2) meaningful data need to be collected; (3) not everyone should work on futures; (4) such sessions should be held in retreat settings to free minds from past and present. (DE)

EA

ED036883

BR 6-139
PA-24
OE/BR

Final Report:

"FUTURISTS" in EDUCATION

(In-Service Program Developed and Directed by

Dr. Samuel Goldman, Professor of Education
Syracuse University

for

Cooperative Educational Research Laboratory, Inc.

1968-1969)

Submitted by:
Cooperative Educational Research Laboratory, Inc.
540 West Frontage Road (Box 815)
Northfield, Illinois 60093

Contract No. OEC-3-7-061391-3061

To:
DIVISION of EDUCATIONAL LABORATORIES
BUREAU of RESEARCH
UNITED STATES OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

August 1969

EA 002 707

ED036883

"FUTURISTS" in EDUCATION

(In-Service Program for CERLI Staff)

1968 - 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Material published herein was developed pursuant to contract OEC-3-3061391-3061 with the U.S. Department of Health, Education and Welfare

The Cooperative Educational Research Laboratory, Inc.

Northfield, Illinois

August 1969

TABLE OF CONTENTS

I. CHAPTER ONE

Introduction 1

II. CHAPTER TWO

The Program: The Year 2000 is Now!. 3

III. CHAPTER THREE

Evaluation and Recommendations 6

APPENDICES:

A. Future Events Generated. . . . . .
B. Scenarios. . . . . .
Education-Industry Interface . . . . .
Schools of 2023. . . . . .
Junior Colleges. . . . . .
C. Selected Annotated Bibliography. . . . .
D. CERLI Futures Library. . . . . .
E. Selected Compilations of Data. . . . . .

CHAPTER I

Introduction

Increasingly the evidence of recent years has pointed to the fact that we are living in an age of revolution. Prevailing social values are being challenged and change is being demanded largely by an alienated generation that is ill at ease with the generation in power.

Within this ferment educational institutions have become an important focal point of disagreement. Expected by many to be the vehicle for social change, education has become in the eyes of some, the guardian of the status quo. The reasons for this are quite complex but at least one symptom of the problem is evident and clear. Complex bureaucratic structures have emerged, seemingly to provide greater efficiency in operation; but in actual fact, these structures have served to block out needed changes. In this regard, one devastating criticism of education is that it has become depersonalized and unresponsive to personal and social needs. The unfortunate situations at many universities such as Columbia and Berkeley, and the explosive decentralization issue concerning public schools in New York City -- all have their genesis in this criticism. A catalogue of similar events can be offered to substantiate the pervasive pressure for change in our educational institutions.

But change to what? It is one thing to evidence a willingness to change, it is quite another to know what fundamental changes to make. It seems evident from the recent actions of educational institutions under pressure that there is no guiding principle, no underlying integrative philosophy or thought behind the changes being made. Indeed change is haphazard and largely in the nature of post-crisis response. Under the circumstances one can never know whether the new event or procedure will be of more positive and lasting value than the event being replaced.

It is the recognition of this lack of direction for change in education that there is emerging, with much greater emphasis, a concern for long-range planning for education. Many organizations (e.g. The Educational Policy Research Center at Syracuse and The Institute for the Future) have begun serious and systematic analysis of alternative futures and their implications for long-range educational planning. The proposed staff development program for the Cooperative Educational Research Laboratory, Inc., should be viewed as an attempt in a similar direction.

Why a Regional Lab? In commenting on some possible futures for America in the year 2000, Daniel Bell suggests that "... in a postindustrial society where the problems of production tend to be fairly routinzed, the major new institutions of the society will be primarily intellectual institutions" and among these institutions will be "different kinds of regional compacts..." which, "... will tend to be the primary institutions of the society insofar as they are the major innovative institutions." [1]

---

1 Daniel Bell, "Working Session One: Alternative Futures" Daedalus, Summer, 1967, p.667

Clearly, Regional Labs fall within this definition. Relatively free from the traditions, mores, taboos and customs of existing institutions, a properly oriented Regional Lab can be an important agency for innovation in education. It can be so only if the Lab does not consume its entire energies and resources in dealing with "post-crisis" situations. At least some of its energies should be dedicated to examining alternative educational futures for the region and to proposing, and in some cases implementing, innovative procedures which are consistent with these futures.

Purpose:

The preceding considerations formed the background against which the CERLI Staff undertook a program to develop long-range educational plans.

Specifically, the objectives of the Program were:

1. To assist the participants in developing a mind-set for examing future developments in the Region.

2. To analyze the present educational posture of the Region in light of projected economic, social, cultural and educational developments.

3. To create models of alternative futures for education in the Region.

4. To devise viable strategies for "moving towards these futures."

5. To make recommendations to key educators and other policy-makers concerning the future of education in the region.

Procedures:

The program period spanned from July 1968 to June 1969. Ten, two-day seminars were held during this period. All sessions were held in locations conducive to uninterrupted study.

The participants included central staff members, program and project directors and selected members of their staffs. The program director (Dr. Goldman) met with the group at every session.

The design for each session varied but almost all included formal presentations, discussion periods, study, reading and writing time, and gaming. In addition, work was carried on between the formal sessions including data collection and analysis, interviews with educators and other officials and discussions with selected experts. Participants were also expected to read relevant literature in preparation for each of the sessions.

CHAPTER II

The Program: The Year 2000 is Now!

TEN MINUTES in the world of 2000! How would you use it? What would you try to discover? How would you change your present activities if you had solid knowledge about the schools, homes, jobs, cities and governments which will exist forty years from now?

This is neither Buck Rogers science fiction nor rainy-afternoon idle speculation. Far from it. These questions have received serious and intensive consideration from the professional staff members of the Cooperative Educational Research Laboratory, Inc., as part of a unique training program designed to improve the services they offer to educational decision-makers.

"2000 is now." Today's first graders will be 37 years old and in the midst of the most responsible and productive portions of their careers. Graduates of today's schools of education will still be teaching. Today's innovations will form tomorrow's accepted patterns of life. Can we avoid thinking about 2000 today?

Discovering the Futures:

Learning about the future is both difficult and risky. In the strict sense, all future events are uncertain and therefore unknown. Nevertheless, some ways of approaching the uncertain future seem more promising than others. One such approach is the Delphi technique developed by Helmer and Gordon.[1] Their extensive use of integrated forecasts drawn from many experts resulted in the following view of future conditions:

> By 1984, the world will have a population of 4.3 billion. Transplantation of natural organs and implantation of artificial (plastic and electronic) organs will be a common practice. Personality-control drugs will be widely used and accepted. Sophisticated teaching machines will be in common use. There will be a permanent base on the moon. Propulsion by solid-cored nuclear-reactor and ionic engines will be increasingly available.
>
> By the year 2000, there will be large-scale ocean-farming and fabrication of synthetic protein. Controlled thermonuclear power will offer a new source of energy. Regional weather control will be past the experimental stage. Primitive forms of artificial life will have been generated in the laboratory.[2]

---

1 Olaf Helmer and Theodore Gordon, Social Technology, Basic Books, etc., New York

2 The Futurist, "Delphi Experiment Proves Classic of Forecasting," Vol. II, No. 6, December, 1968, p. 128

A strict use of the Delphi method would require that the experts independently submit their initial estimates without knowing the identity of the other contributors. The nature of the staff development program, however, precluded such a strategy. Sacrificing benefits that might accrue from greater independence and isolation, laboratory staff members worked together to gain lively interaction and more complete understanding of the reasoning that premised other members' views of the future. A great deal of data were needed in order to develop futuristic events in a systematic and disciplined manner.

Two staff members made an exhaustive search and compilation of appropriate statistics for the region. The data were summarized in a set of more than sixty statistical charts and graphs which were presented to the group at an early meeting.[3] These data were carefully analyzed to discern meaningful trands and thirty-one futuristic events were projected.[4]

Staff members then filled out a questionnaire giving three estimates about each of these events: (1) The probability that the event would ever occur. (2) The most likely year of occurrence. (3) The desirability of the event itself and its repercussions on other types of future events.

The seven events with the highest probability of occurrence were:

> The public school system will include massive job retraining for adults in certain occupations.
>
> A metropolitan school district will exist in the Chicago area to provide integrated education for students in city and suburb.
>
> Work will become part of an individual's higher education -- a cycle of work-study-work.
>
> Universities, businesses, and industries will co-sponsor university programs.
>
> The public school system will be extended to include non-compulsory junior college education.
>
> Research and development divisions will be part of all large school systems.
>
> Facilities will be provided to handle shared-time educational programs.

These events were expected to occur before 1980 and were considered desirable by most of the staff members. After each event was discussed, the group then examined the conglomerate of events to see the impact of each on the others. The latter was viewed as the means for preparing the scenarios.

---

3 For some sample data, see Appendix E

4 See Appendix A

Scenarios:

A two-step flow was used in the development of the scenarios. The first step involved developing separate scenarios around the theme implied in each of the events. Each participant chose an event of personal interest and developed the scenario. These were then circulated and discussed within the group. Step two was designed to integrate the various scenarios. Unfortunately, the program ended at the end of step one and the second step was never realized.[5]

Gaming:

One effective way for developing scenarios is through "gaming." Each player is assigned a role and asked to respond to events as if he were the major decision-maker for the group he represents.

During the program, gaming was introduced into a few of the sessions. Roles were assigned and discussions were recorded and analyzed. The following is an illustration of a stimulus used to generate one of these games:

> It is the Fall of 1979. More than 50% of Chicago's population is black, as is over 80% of the public schools' enrollment. The surrounding suburban population remains over 90% white. Because of the relatively low assessed valuation of property, the strained current school tax rate, the loss of major industries to the suburbs, and the very poor conditions for teaching, the city schools find they will be unable to provide adequate expenditures, space, and staff for the large numbers of children entering the system even considering a continual increase in state and federal assistance. The superintendent of schools reports to his board that in light of these problems the Chicago Public School System will be unable to open in the fall of 1980. He recommends that an urgent meeting be convened with suburban school boards; other superintendents representation of local, state and federal governments; civic and neighborhood groups to assist in finding a solution.

---

5 For some samples of preliminary attempts at scenario development by members of the CERLI staff, See Appendix B

Some sources for examining the method of scenario writing, see:

Herman Kahn, Thinking About the Unthinkable, N.Y.: Horizon Press, 1962

Educational Policy Research Center at Syracuse, How Can A History of the Future Be Written? Syracuse, N.Y.: Syracuse Univ.Res.Center,1968

CHAPTER III

Evaluation and Recommendations

There was little or no disagreement with the rationale behind the program. Everyone agreed on the need for change in education and that such change should be predicated on what the future may hold. There was also agreement that the regional laboratory should play a role in influencing the direction of change.

The major weakness of the program was that it was too ambitious in light of the time and resources available for its implementation. In the planning phase of the program it was felt that the goals were realistic and capable of achievement. In retrospect it is clear that not all of the goals can be achieved in so short a time with so little resources. Further, success was dependent upon the sequential achievement of certain of the goals, especially the first one. The fifth goal was never attempted while attempts with the remaining four met with varying degrees of success and failure.

Goal 1 -- Developing a "Futures" Mind-set

"Futures thinking" was new to all of the participants. None of them had ever really thought of the future of education in a systematic, disciplined way. As a result, many had difficulty in accepting this program as a top priority activity for CERLI. A familiar argument was, "I have to meet a deadline in my current project and I really haven't got the time to think of ten years from today."

After three sessions devoted to examining the theory and methods of futures-building, several staff members dropped from the program. A few expressed commitment and continued with the program.

In sum, all of the participants had to be convinced of the merits of the activity in order to be able to relate futures to the "here and now." It is clear that success with Goal 1 will determine the degree of success with subsequent goals.

Goal 2 -- Analysis of Relevant Developments

The remaining staff members spent time in collecting data that would be useful in identifying trends in the region. Unfortunately, very little pertinent data were readily available and a great deal of time had to be spent in ferreting out whatever data there were. Further, most of the data appeared as secondary sources and had to be extrapolated to be useful in analyzing certain trends in the region. Collecting and processing of data were very tedious, demanding of time and resources.

Because the participants had a mind set for "futures" they were able to see the implication of the data for long-range planning. These data then became important inputs to the events that were subsequently generated.

Evaluation:

Goal 3 -- Creating Models of Alternative Futures

Attempting this goal was extremely provocative and probably the most involving portion of the program. Each participant chose an event he wished to develop and then discussed his work with the total group. Many questions were raised and new perspectives were realized during the discussions. There was a tendency sometimes to get carried away into a science fiction type of activity, where each person let his imagination run freely (and sometimes wildly). While some of this was very useful, it was neither systematic nor disciplined and often proved to be distracting. At these times someone brought the group back to dealing with the data by asking, "How does this fit with what we have?"

Integrating the individual projects (i.e. dealing with the events as a conglomerate) was a very difficult activity. Indeed it was not achieved very well. There simply was no time within the framework of the program, to effectively bring the events meaningfully together.

Goal 4 -- Devising Strategies

An exciting aspect of the program was the realization by the participants of what the future might have in store for education. "So what?" asked a participant, "What do we do about it?" Another asked, "What do we think should be enhanced or impeded? Why? and How?" It was very difficult to answer these questions for they involved, among other things, personal values, and knowledge of political process. The hoped-for outcome for this goal was to formulate intervention strategies for each scenario. Limitations of time and resources simply did not permit realization of this goal.

Goal 5 -- Making Recommendations to Appropriate Policymakers

No time was available for implementing this goal.

Recommendations:

The program had several weaknesses and strengths. The weaknesses do not appear to be so insurmountable as to deny the importance of such a program. Indeed, if one accepts the rationale, the importance of such a program to innovation and change is self-evident.

Based upon the experience with the CERLI program, the following recommendations are offered for those wishing to embark on a similar program:

1. The scope of the program should be developed in light of the available time, resources and personnel. Overly ambitious goals attempted with limited resources can lead to frustration and loss of interest among the participants.

2. Meaningful data need to be collected since they are important to systematic and disciplined futures planning.

3. Working on futures is not for everybody. Certain people may have the interest and readiness for developing a mind-set, others may not. The former should be encouraged to participate, the latter should not be compelled, and perhaps should even be discouraged. The work of the futures group could be fed into the on-going activities of the total group. Whatever the composition of the training group, it should have as stable a membership as possible -- and a low turnover rate.

4. The program should emphasize "future-thinking" as soon as possible. Members of the board of trustees might even be included at this stage.

5. Staff training sessions should be held in retreat settings, in order to free minds from the past and present, and gear them to the future. Concentrated blocks of time are preferable to shorter ones for generating and maintaining more effective future-thinking. Perhaps 8 to 10 days are necessary, allowing enough time for thinking and reading and for intensive group work.

A Final Word

In a development agency such as a regional laboratory, the focus is implicitly (if not explicitly) on the future -- what directions to take and how to get there -- and every staff member must be ready and able to think about, discuss, and deal with it. Perhaps the most useful contribution of the program described here has been that it served as a valuable instructional tool for thinking about the future. Viewed this way, the by-products of the program can even be more important than the products (e.g. scenarios, etc).

Indeed, speculating about the future, causes people to raise questions, explore possibilities, seek and create potential solutions. In this context then, the full extent of the value of such a program cannot be known until long after its completion.

APPENDICES

A Future Events Generated

B Scenarios

"Education-Industry Interface"

"Schools of 2023"

"Junior Colleges"

C Annotated Bibliography (Selected)

D CERLI Futures Library

E Selected Compilations of Data

APPENDIX A: FUTURE EVENTS GENERATED

CERLI STAFF DEVELOPMENT PROGRAM (October, 1968)

Future Events

Directions:

Based upon a trend analysis of existing data, the following educational events have been projected for the future. Under the first three columns, respectively, please indicate the desirability, effectiveness, and probability of each event occurring, by writing the numerals from "1" to "5" to refer to:

1. very much
2. some
3. questionable
4. little
5. none

Under the last column, indicate the year you believe the event will become a reality.

No.	Educational Events	Median Modal .Desirability	Median Modal .Effectiveness	Median Modal .Probability	Modal Median Range .Year
1.	Inner-city children will live in residence schools in order to offset the effects of their living environments.	3 3	2 1	2.5 1,2,3	1990,80,75 1983 1971 - 2000
2.	Self-contained communities will be contained in urban high-rises.	2 3	2 3	1.5 1	1975 1979 1969 - 2000
3.	T.V. will be used to beam lessons into the apartments of children living in these high-rises.	3 3	2 2	1 1	1980 1978 1969 - 1990
4.	Each apartment in these high-rises will have a learning counsel, obviating the necessity of attending class lectures.	3 2	2 2	2.5 3	2000, 1990,78 1985 1970 - 2000
5.	Because of the breakdown of the extended family, members of the family will be educated in their new roles by special schools.	2 2	2 2	3 4	1985 1988 1976 - 2000
6.	Because of the increasing inability of local school districts to finance education, the federal government will issue script to all citizens for the schools of their choice.	2 2	2 1,2	4 4	2000,1990,1980 1989 1978 - 2000
7.	State-subsidized schools will be maintained for the training of women in vocations.	2 2	2 2	2 2	1985,80,75 1979 1971 - 1985
8.	Vocational education will be the primary responsibility of industry, with government subsidy.	2 1,2	1 1	2 2	1975 1978 1975 - 1990
9.	Heavy industry will be located in the central cities; schools and managerial offices in the outer rings.	3 3	3 5	3 3,4	1985 1986 1973 - 2020
10.	The Chicago public school system will be decentralized, with community boards of education making major policy decisions.	2 3	2 2	2.5 2,3	1975 1977 1970 - 1985

No.	Educational Events	Median Modal .Desirability	Median Modal .Effectiveness	Median Modal .Probability	Modal Median Range .Year
11.	The public school system will be extended to include non-compulsory junior college education.	1 1	2 2	1 1	1975 1975 1970 - 1980
12.	The public school system will be extended to include massive job retraining for adults in certain occupations (farm and mine workers, other laborers, managers, officials, proprietors, operatives, craftsmen, foremen).	1 1	2 2	1 1	1980,78,75 1977 1972 - 1980
13.	Research and development divisions will be part of all large school systems.	1 1	2 1,2	2.5 1	1975 1984 1973 - 2020
14.	Massive high school campuses will be built to handle the increasing proportions of adolescents in population.	3 3	2 1,3	2 1,2	1975 1977 1970 1990
15.	Masters degrees for teachers will be required for all teachers at all levels.	3 3	3 3,4	1.5 1	1980 1980 1980 - 2000
16.	Private schools will be subsidized to a large extent by public funds.	3 3	3 3	2 1,2	1975 1979 1975 - 1990
17.	Facilities will be provided to handle shared-time educational programs.	2 1,2	2 2	1 1	1980,75,70 1977 1970 - 1990
18.	Separate institutions of higher education will exist for teaching and for research purposes.	2 1,5	2 1	3 3,4	1990,80 1987 1973 - 2010
19.	A metropolitan school district will exist to provide integrated education for students in city and suburb.	2 1	2 3	2.5 1,2,4	1980 1986 1970 - 2010
20.	Members of school boards will be elected by wards to represent them.	3 3	2 2	2 2	1975 1976 1968 - 1990

No.	Educational Events	Median Modal .Desirability	Median Modal .Effectiveness	Median Modal .Probability	Modal Median Range .Year
21.	Industries and businesses employing a large number of women will provide pre-school and primary education for children of these women.	2 1,2	2 1,2	3 3	1980 1982 1970 - 2000
22.	School classrooms will be equipped with conditioning booths in which controls such as rewards and punishments can be manipulated by teachers.	3 5	2 1,2	2 3	1980 - 1973 - never
23.	University education will cater to an intellectual elite, with increased social distance between the classes.	5 5	3 1	2 2	1968 1981 1968 - 2000
24.	Universities will be brought to where the people are -- in living rooms, businesses, industries.	2 2	2 2,3	2 1	1990,80,75 1982 1968 - 1995
25.	University courses will be built around and geared to already-existing informal groups-- such as work groups, friendship groups.	2 1	2 1	2.5 2	1980 1983 1970 - 2000
26.	Certification requirements for university teaching will be dropped and the non-university graduate will be given the rank of professor to teach in his area of expertise.	3 3	2 2,3	3.5 4	1990 1986 1975 - 2000
27.	Work will become part of an individual's higher education -- a cycle of study-work-study.	1	1	2	1985,75 1979 1968 - 1985
28.	Universities, businesses, and industries will co-sponsor university programs.	1 1	1 1	1 1	1975 1975 1968 - 1980
29.	University students will be required to demonstrate competence, not only in academic work, but also as practitioners.	1 1	1 1	2 2	1980,78 1980 1975 - 1990
30.	Because of the shortage of land for classrooms, schools-on-the-sea will be utilized.	3 3	3 2,4	3 3	2000,1980 1985 1970 - 2000
31.	The Federal government will encourage life-long education by awarding promising adults scholarships for educational leaves.	2 1	1 1	2.5 2	1985 1981 1970 - 1989

APPENDIX B: SCENARIOS

Education - Industry Interface: 1973

Bill Morgan, the Secretary of Human Resources, sat dejectedly behind his desk, pondering his performance before the Congressional Committee on Employment in the United States. He had just been through a gruelling two hours of testimony on the effects of the Employment Opportunity Act of 1973. "What small minds these Senators have, he thought. "Why can't they see that it costs money to retrain people for employability in today's society? So what if industry is getting the better end of it? So what if big business is getting big subsidies to retrain people for their own purposes? They get even bigger subsidies in the oil depletion allowance and nobody seems to say anything. Even the education people are unhappy but, hell, they weren't doing much before the Act. At least now we have more productive people in our nation than ever before. The fact remains that there are fewer unemployed and underemployed people now than there were before the Act was passed."

His mind wandered back to the year 1972 when he became the first Secretary of Human Resources. The President of the United States, acting on the advice of a specially convened task force, combined the work of H.E.W., the Labor Department, and the Department of Commerce into one Department of Human Resources.

He thought back on his White House Conference on Job Retraining, convened just three months after he took office, and mulled over in his mind the major recommendations of this conference:

1. That a formal partnership be established between industry and the public schools to carry out a program of vocational training and retraining, with special attention being given to farm and mine workers, general laborers, managers, office workers, proprietors, operatives, craftsmen, and foremen.

2. That direct aid be given to public schools to support programs of adult education, and that appropriate tax incentives be established to encourage the participation of relevant industries in this program.

3. That a clearinghouse for national employment opportunities be established to serve as a job placement center for graduates of the training programs.

4. That the federal government and industry subsidize the move and resettlement of these graduates to those parts of the country where jobs are available.

5. That special consideration be given to the most chronically unemployed and underemployed segments of society to participate in these programs.

6. That the Secretary of Human Resources be responsible for the programs and their evaluation.

As a result of these recommendations, Congress passed the Employment Opportunity Act of 1973. Within the Department of Human Resources was established the Office of Job Retraining, with a chief, directly responsible to the Secretary. This office had the responsibility of administering the Employment Opportunity Act, including the following tasks:

... to devise guidelines for preparing proposals for funding under the Act

... to cooperate with the Internal Revenue Service to establish guidelines for the tax incentives for industry

... to assess proposals, distribute and account for funds under the Act

... to evaluate the progress of the various funded programs

... to establish a national job placement center

Now, almost five years after the passage of the Act, trouble was brewing. This trouble was indicated by some of the individuals who, like himself, had just testified before the Congressional Committee on Employment. For example, there was the superintendent of education for one of the large industrial states. According to him, many local school administrators within his state felt their districts were becoming increasingly exploited by industry for its own profit. They wanted more control over the funds and programs provided for under the Job Retraining Act. The state superintendent, himself, was also opposed, and recommended repeal of that part of the Act which by-passed his office in granting aid directly to local school districts.

Then there was the testimony of the executive director of the National Association of Vocational Educators. He complained vociferously about his constituency being left out of the Act in terms of decision-making. Since they were involved in the planning and administration of programs under the Act, these educators felt they should help determine the content of such programs. This organization was thus calling for the repeal of the present Act and the enactment of a new one in which its members would have a central role.

Another group expressing its displeasure with the Act was the N.A.A.C.P. It called for two major changes in the Act.

1. Greater participation by it and other like groups in governance of the Act. One suggestion was in regard to guaranteed representation of minorities on a National Advisory Board to the Secretary of Human Resources.

2. More attention given by the Act to the underemployed, who tend to be neglected because underemployment is more difficult to detect and measure than unemployment.

"If these kinds of pressures weren't enough," sighed the Secretary, "the testimony by an eminent economist hadn't helped any!" Using an input-output

analysis, this economist had found that the amount of money being spent on a representative number of programs under the Act had appeared to yield only minimal results. Even groups which officially supported the present Act, in general, could not support all sections of the Act or really speak for all their respective constituencies. For example, the National Chamber of Commerce, which represents local and state Chambers, strongly supported most of the programs, especially the tax incentives. Yet it was complaining that jobs in certain sections of the country were going begging because newly retrained workers refused to move to where the jobs were. At the same time, many local and state Chambers were making it known that they were afraid lest any potential mobility arising from this Act upset the stability of their respective communities.

Bill shook his head in disgust. He thought to himself, "It seems as if all the groups want to have a bigger share of the decision-making pie. Where does that leave room for us professionals? One group calls for more efforts at relocation; another for less. One group recommends concentration on the unemployed; another, on the underemployed. One group suggests an attack on discrimination in unions so that the retrained workers can get the new jobs and job security they expect; the unions support the Act, but refuse to modify their internal structures and functioning. Everyone says they support the intent of the Act; yet, no one wants the Act to do what it is intended to do -- to make a significant breakthrough in the wars against poverty and unemployment. How can you win?"

"Of course," Bill continued to ponder, "all was not that bad. Many parts of the Act were proving themselves. Look at the marginal farmer. Thanks to this Act, there were fewer and fewer of them. Look at the unemployment and welfare rolls. Their numbers have never been so low. And what about the most recent civil disorders in the nation's cities? One recent study showed that during the last four years, only five per cent of those enrolled in our Job Retraining programs have participated in local civil disorders, as compared with almost twenty per cent of those not enrolled. This figure surely means something!"

Just as the Secretary was beginning to feel better about the whole situation, the phone rang. It was the President. "Bill," he said in a voice that only meant trouble, "I'd like to talk to you about your Job Training Program. What kind of plans have you got to get these complainers off my back?"

Appendix:

OFFICE OF JOB RETRAINING GUIDELINES FOR FUNDING AND EVALUATING PROGRAMS UNDER THE EMPLOYMENT OPPORTUNITY ACT OF 1973

The Office of Job Retraining was given the task of contracting with a recognized, non-governmental agency for the evaluation and funding of the programs under the Employment Opportunity Act. Based upon the recommendations of this agency, the following procedures were adopted by the Office:

> "Regional offices will be established and staffed by federal officials who will call together industry and education to undertake programs. The degree of involvement by industry will determine the amount of tax incentives it receives, and the same holds true for schools, which will receive grants.
>
> "Industry might say it needs 'X' number of people to be auto mechanics. It then selects the school which it feels can best help it achieve its needs, and both of them, together, go to the Office of Job Retraining for funding. If its program is approved, tax incentives will be provided the industry, and money granted the school according to a formula. The school might be given twice the amount of money it says it will need to educate, any excess money to be used for the support of other programs, at the school's discretion; e.g., if the cost to educate is $300, the industry would get $300 in tax incentives, and the school would get $600-$300 to be used at its discretion for other programs.
>
> "Each funded program is to designate a small research staff to gather data on an on-going basis. These data are to reflect both activities carried out and outcomes, and are to be analyzed and summarized in a brief report to the non-governmental agency. The agency, in turn, uses the Delphi method for assessing the reports, and provides feedback to the funded programs. Program directors are to take account of the feedback and reply to the Office of Job Retraining on plans for accommodating the suggestions included in the feedback report.
>
> "At the end of the year, the program(s) would be evaluated by professionals (e.g., auto mechanics testing other auto mechanics). If overall performance is satisfactory or better, the program(s) would continue to receive funds; if not, the program(s) would be cut off.
>
> "Schools and industries will be cooperating with one another on participation in the Employment Opportunity Act. The purpose of this cooperation will be to 'wed' the best of instructional knowledge of education with the physical capabilities of industry."

N. E. A. POSITION PAPER ON PARTICIPATION IN THE EMPLOYMENT OPPORTUNITY ACT

A sub-committee consisting of authorities on junior college, vocational, and adult education was appointed by the N. E. A. to draft a position paper stating education's rationale and plan for participation in the Employment Opportunity Act. This position paper follows:

"As educators, we believe that an individual must be given an opportunity to (1) Acquire technical skills and competence in performing present and future job roles; (2) Improve basic skills and competence in mathematics, reading, writing and speaking; (3) Develop interpersonal skills and perceptions in relation to co-workers and supervisory personnel and -- where relevant -- to the public; (4) Develop understandings and acceptance of his role and responsibilities as a citizen in a democratic society.

"We also believe that an individual's productivity is affected by his attitude towards his daily task, his incentive and opportunity for advancement, his response to his 'working' environment, and his opportunity to provide for his family. In order to help an individual to perceive and develop these essential aspects of his employment opportunity, the public school system should plan and implement relevant educational instruction and experiences. Such programs would necessarily be predicated on, planned for, and adapted to specific groups within the total adult population to be trained.

"In this approach, educators and 'on-the-job' training staff would collaboratively plan realistic instruction and experiences for developing basic and technical skills.

"The N. E. A. would advocate that the authority and responsibility for developing and implementing this program be assumed by the public school system."

NATIONAL ASSOCIATION OF MANUFACTURERS POSITION PAPER ON PARTICIPATION IN

THE EMPLOYMENT OPPORTUNITY ACT

To support and strengthen the Employment Opportunity Act of 1973, a number of large industries decided to act within the separate confines of their respective industries. This was proposed because each of these industries had an already established administrative organization -- the Plastering Contractors Association, the Electronic Personnel Association, for example. However, representatives from the various industrial associations meeting at a N. A. M. conference agreed that a common core of ideas existed among the many industries and could be stated as follows:

> "The association components of industry consider the high degree of mobility that exists within neighborhoods and communities at the present time to be undesirable from many viewpoints. It is costly to industry, it furthers a high crime rate, it produces poorer schools, and it results generally in an unhealthy community climate. Therefore, industry views the Employment Opportunity Act of 1973 as a means of stabilizing the community. By identifying the unemployed in the immediate community or neighborhood, by assessing its own future needs of employment, by isolating future obsolete jobs, and by actively providing for the retraining of workers affected by these conditions, the separate companies of each industrial association contribute to the Employment Opportunity Act and to the stability of the community.

"Depending on the extent and assessed need for retraining, each industrial association planned its retraining programs accordingly. Programs have become short-term or long-term; they have been scattered among various companies in the industry, or they have become centrally localized.

"Various union organizations that function within each industry were invited to participate in the retraining program. Since retraining involved unionized employees, contractual agreements were worked out to permit employees to operate outside the designated areas specified in the job analyses.

"Industry agreed to supply all the personnel and facilities for retraining, providing they were available. Otherwise the Regional Education Authority could be asked to provide the people and facilities. So far, this Authority has not been asked to do so.

"It was left to the industry to decide what areas of retraining it deemed relevant. The Regional Education Authority then selected the applicants, opportunities at first given to those applicants in the immediate area of the industrial site.

"Acceptance into employment of individuals retrained in the program was left to the discretion of the company. Companies did so on the basis of (1) residence of the applicant and (2) the evaluation given the applicant at the end of the program.

"Although the Employment Opportunity Act has provided generous tax credits as incentive for moving the industry to those areas where there are adequate numbers of individuals willing to be trained, the industries in the National Association of Manufacturers have not done so because of other factors: distance from markets or raw materials, etc. Members of N. A. M., however, believe that the idea is not without merit but it is unprofitable at the present time to undertake. Nevertheless, N. A. M. believes that industrial movement to labor sources does stabilize the community.

"N. A. M. believes that the worker should be made more flexible so that continued movement within industry is possible without constant retraining. It believes, however, that flexible, general-type education should be undertaken in the formative, formal education training program of the child and should not be left as a function of industry. Industry will provide specific skills to those needing retraining, but it does not believe the education of the 'whole man' can have any impact within the financial limits of the Employment Opportunity Act.

"N. A. M. believes that job enlargement is desirable, in that it introduces retraining while the worker is performing a usable function and, at the same time, develops a more flexible approach to work. Therefore, N. A. M. would suggest that the Employment Opportunity Act be extended so that employed workers be given the opportunity to enlarge their jobs and skills on a part-time basis as financed by the Act.

"N. A. M. believes that industrial site training of Employment Opportunity Act applicants is superior to any education program that would be conducted in traditional type classrooms. Industrial site training with successful professional industrial teachers will insure relevancy and the success of the program.

"N. A. M., in addition to employing its own staff in the retraining program, will attempt to employ those professionals who entered the E. P. D. A. program in 1968 and have become successful in bridging the gap between industry and education."

TESTIMONY BY REPRESENTATIVES OF C. O. R. E.

"The Kerner Report of 1968 outlined the major causes of the civil disorders and feasible methods of preventing future outbreaks of violence. The recommendations of the Kerner Report have been largely ignored, with the result that the conditions preceding the civil disorders are still present in most of our cities.

"Unless we do something about the rising problems created by unemployment and underemployment, we can only expect violence of much greater proportions in the future. We can also expect an increase in crime, as those unemployed desperately look for other ways to maintain themselves and act out their frustrations.

"Violence is only one of the risks of inaction. Hepatitis and other diseases which flourish in congested areas of poverty, and malnutrition will reach epidemic proportions if the problems of these communities are not alleviated. Social problems resulting from father-absent homes will continue to rise. Although the Employment Opportunity Act of 1973 has provided some of the necessary measures for dealing with unemployment and underemployment, the powers of this Act must be greatly expanded in order to handle realistically the demands of our time."

TESTIMONY BY PETER PIPER, PROFESSOR OF ECONOMICS AT

MIDWESTERN UNIVERSITY

"I have watched the development of the Employment Opportunity Act since it was first proposed by the President in his inaugural speech of 1973. I have listened to its supporters at first make ambitious claims for the proposed legislation and later defend it against those who claim that either the Act is not meeting the needs that exist in our American free enterprise system, or else that it is not even attempting to do what was originally claimed for it.

"True, the Act has made some contributions. For industries it has strengthened their ability to upgrade the training of their manpower and attract new manpower. At the same time, however, in the training phase, potential employees are paid salaries and both their salaries and the costs of their training are tax exempt. In other words, the American taxpayer pays the cost.

"I speak before you today not to either attack or to defend the Employment Opportunity Act, but to raise several questions that have appeared. In 1964 the Bureau of Labor Statistics projected that the National Manpower Needs by Industry 1964-74 would be --

Government -- /50

Service Industries -- /50

Manufacturing -- /20

I shall include their total statistical representation into my written report but shall limit my remarks now to the Government and Service Industries categories. Neither any branch of our government System nor the small service agencies -- the local laundromat owner, the local garage, the dry-cleaner, the shoe repairman -- is qualified under the Employment Opportunity Act for tax incentives for training funds. In other words, large industry has been put in an unfair bargaining position to attract those workers just entering the world of work or to attract others away from competing categories.

"My question to you today, gentlemen, is whether or not the provisions of the Employment Opportunity Act should be changed to put governmental and several other categories into more competitive positions to meet their manpower needs."

STATEMENT OF FUTURE EMPLOYMENT NEEDS

The strategy of retraining, as expressed in the Employment Opportunity Act of 1973 is to prepare presently unemployed adults for work in the most rapidly expanding occupations and industries. A task force was set up to specify which industries and occupations should be included and how the course contents of the retraining program were to be selected and approved.

The most rapidly expanding Census Bureau classification of occupations, professional and technical workers, was excluded by the task force as being too ambitious a project for the retraining of presently unemployed adults. Three remaining areas of rapid growth were:

1. Clerical

2. Service, including local government

3. Sales

According to the report of the task force, "Each of these three areas presents problems for retrainers because of the presence of a large number of unemployed adults who are not eager to change from farm, mine, laboring, and individual proprietor types of jobs.

"A more basic difficulty, however, lies within the whole concept of a retraining curriculum, even if the adult unemployed are given strong incentives to change their occupational patterns and abilities. The basic problem referred to is the time lag which makes it difficult to meet future labor shortages from excess labor potential today. The problem arises in several ways:

1. Teachers of new skills are hard to find and expensive to hire. They can make a great deal by getting in on the ground floor of the boom in their specialties, and teaching in our program offers lower wages and less potential for advancement.

2. New industries are not organized as pressure lobbies to get themselves included in the list, but it is here that some of the most rapid expansion will occur. Seven major new industries expected to be flourishing in the Chicago area in 1980 are biomedical engineering, vacuum technology, engineered materials, oceanography, space simulation, electronic metal working, and waste control and re-use.

3. There is a risk of error involved in every predication and the results of training people for jobs not now available may be intolerable even if many jobs materialize a year or two after the graduates are trained. This creates a strong incentive to train for yesterday's well-known jobs (which are beginning to be phased out) rather than tomorrow's somewhat unknown occupations.

4. The rapidly growing areas which do not require extensive and demanding preparation, require the type of disposition which unemployed people are least likely to have; i.e., if they enjoy sales work, they are less likely to be unemployed than if they are not motivated in this direction.

"Critics of our Job Retraining Program have said that we are attacking unemployment in the wrong way when we train people in new technical skills. These critics have said that it is attitudes, not skills, which make the big difference in employment. They say that employers can and do give the opportunity to learn skills to people who impress them favorably, primarily through attitude expression. These critics have called for sensitivity retraining rather than for training in on-the-job procedural matters. In the great tradition of compromise and keeping everybody happy by putting something in the program for everyone, the curriculum recommendation has been made to put a small amount of training time and effort into sensitivity training."

Scenario: Schools of 2023

Main Event: Use of chemicals to increase intelligence, control emotions

Other Events:

1. World Government
2. Life span increase
3. Urbanization into huge continuous cities
4. Educational technology
5. Apartment complexes, including schools
6. Shift in emphasis from individualism - competition to groupism - cooperation
7. Use of a new computer-compatible world language

Time Perspective: First Section, 2023

Second Section, 2023 version of world history from 1950 to 2000

Section I:

Edward Max, a seven-year-old student, is preparing a series of reference dissertations for his independent study in history. He is regarded as an above-average student by the research consultants, media specialists and evaluators in his apartment building's elementary school study center.

Ed began his academic career in March, 2023, on his second birthday. Before that, his parents had allowed him to amuse himself by watching eduvision and playing with the children's console of the computer outlet in their apartment. As a result, Ed had a good background of learning skills and general information in several basic disciplines before he entered school. His combined score on the learning procedures readiness inventory was in the 74th percentile. Ed's intellectual skill in analysis (stating problems) portion of the test was in the 68th percentile; his synthesis quotient (the part which measures ability to combine resources into solutions) was in the 79th percentile.

"He's no genius," remarked Stuart Max, Ed's father, "but maybe it is just as well." Ed's father didn't elaborate but his mother nodded knowingly. The Kashizuki family down the hall was having trouble with a nine-year-old mathematician who refused to eat or sleep when he was working on a major analysis. The parents had tried to divert the youngster's attention to more useful and relevant subjects, but the boy's computer console and eduvision programs seemed to move inevitably toward the violently analytic subjects and away from socially relevant issues such as emotion management, social engineering and interpersonal thought skills. Mr. Kashizuki had told Mr. Max that he wishes that he had more control over his son's study.

Mr. Kashizuki favors a proposal to use censorship to restrict science and mathematics programs on eduvision to viewers older than twelve who have passed the social skills examinations. "These kids get into bad habits if you let them run wild in the destructive forms of knowledge. All you can do in science and math is tear things apart. When are we going to make these kids learn something useful?"

Ed's father smiled patronizingly when he recalled Kashizuki's phrase "make these kids learn something useful." The man's attitude was out of touch with modern non-coercive philosophy. In fact, Kashizuki was expressing the same negative and violent thought patterns on the social level which he abhorred when his son expressed them on the comparatively unimportant level of inert objects and blind, unthinking forces.

"There are no problem children, only problem parents," Stuart Max thought to himself. "Maybe there was something wrong with the neurochemist's equipment when Kashizuki was born. Doesn't he know that we must bring together all knowledge, even the unpleasantly analytic kind, if our democracy by intellectual synthesis is to work?"

Stuart and Ellen Max were proud of their child and took an active interest in his progress in their apartment building's elementary school. Perhaps their normal parental emotions were heightened by the fact that he would be their only child. Regulations limiting parents to a single child had been rigorously enforced for about twenty years. However, the growth in world population had continued during this period because of the longer life spans. The compulsory school matriculation age had been reduced to two in order to give the only child some of the social experiences which had been supplied by brothers and sisters in the families of previous generations.

A chromosome analysis for both Stuart and Ellen was part of the procedure involved in obtaining the permit to procreate a child. Chemical adjustments to the parents' diet were prescribed and a series of tests and injections were given to Edward both in utero and as a newborn infant to increase his mental capacity and rationalize his affections and emotions.

Ellen Max was fond of saying, "Our boy is a real doer." Ed was a prolific scholar, giving his mother many opportunities to repeat this statement. In his second year of school he had attracted considerable attention by creating a series of reference works outlining a unified decision procedure adapted to the needs of student task forces. Ed's task force is a group of six children ranging in age from 3-1/2 to 8. Each child had studied the social decision process as practiced by other task forces in his school and other intellectual teams throughout the society.

Ed had been preparing for future work on thought processes among adults in the 45-60 age bracket who experienced the various primitive forms of intellichemical therapy. One of the more esoteric topics on which he has written abstracts and state-of-the-art reviews is the methods of dealing with the problems of people over 60 who had reached adulthood before in utero and childhood intellectual therapy techniques came into general use.

Another of Ed's more extensive projects is his synthesis of the reasons why individuals and groups incorporate many of the features of the proposals which they reject most emphatically at first. In this project, Ed had arrived independently at some of the basic postulates of an acceptance-of-learning theory developed about thirty years earlier by a well-known adult scholar Darin La Neve. After reading La Neve's book, The Flip-Flap Syndrome, Ed had discussed the project with La Neve by communiphone. The scholar encouraged Ed to continue his work on differential acceptance of learning and come to visit him later in his building located in another part of the city, about three-hundred miles away. In the meantime, however, Ed had become absorbed in several other smaller projects related to the mental operations of plants and sub-chordate animals. In turn, Ed had set this material aside to work on his history study.

Even though these former study projects had been relegated from Ed's work in progress data bank to his Encylofile retrieval system, they were not entirely absent from his attention. He reviewed all of his work periodically in order to facilitate his preparation for the universal-knowledge exam. It would probably be more than twenty-five years before he felt that he had mastered all human knowledge and was prepared to take the 15-month encyco-synthic examinations. Ed and his consultants have arranged the material recorded in his mind, data bank and private library in the standard pattern: association-use-evaluation-reuse-recall. This arrangement has been found to be the optimal one for seven-year-olds of Ed's intellectual characteristics because it maximizes the active retention and allows easy reactivation of the material that has slipped into passive form.

Ed is reading over some of the introductory material and working notes he wrote yesterday after skimming several world history reference books for children. He gave most of his attention to the Mental Awakening, the period from 1950 to 2000. Ed's notes read as follows:

Section II:

The last half of the 20th century is generally regarded as the beginning of modern society. Many of the sources of our present mental and intellectual organization of human life can be traced to the new attitudes toward man which emerged in this half-century, giving this period its generally accepted name, the Mental Awakening.

This is not to say that all of human existence before 1950 consisted entirely of an intellectual stupor, but only that a deadening preference to use the mind to study things rather than people pervaded human thought and constricted human understanding. The first forms of our present elevation of persons to their proper place in the scheme of things began, curiously enough, by the degrading approach of treating people as things. The early humanistic studies*

* It is interesting to note that what 20th century man called the humanities would fall mostly in the fields now known as the individualities. The techniques used in the individualities encourage self-expression by a single author or creator. The audiences to which literature, art and music were conceived as an agglomerate of separate individuals with little or no impact on each other.

were called social science, a term which now seems to be a strange contradiction in terms because science tears things apart to study their smallest components while society welds people together to gain group benefits and produce group achievements which are far beyond the capacity of individuals or even small groups of imperfectly organized individuals.

Here and there in the centuries before the Mental Awakening, a brilliant individual produced ideas of the quality which would be acceptable in ordinary conversation today, but most of the recorded thought before 1950 would now be considered trivial, pointless or diversionary. Even the few brilliant individual insights that did occur before the Mental Awakening seemed to be largely wasted at the time because there was no organized social system to evaluate ideas, separate the wheat from the chaff and draw out the implications to combine them into meaningful syntheses leading eventually to an understanding of the whole.

There was endless argument and disputation as to which of the views of life presented by such above-average thinkers as Plato, Aristotle, Leibniz, Spinoza, Descartes, Kant, Hegel, Whitehead and Dewey should be accepted. The irony of the whole of primitive intellectual life was that the evaluators knew the thoughts of few, if any, of these intellectual giants well enough to make any meaningful comparisons. The procedure of organizing into teams and intellectual work forces with enough capacity to contain the ideas and draw out the implications is an entirely modern idea. Group intellectual activity was first developed in the degenerate, thing-centered scientific disciplines. An early example of an intellectual work force, the Manhattan Project, was not devoted to the study of the human mind.

The pre-1950 primitivism is seen most graphically in the tendency of uninformed individuals to pass judgment on great thinkers. The ordinary, run-of-the-mill primitive intellect was ashamed to go beyond himself to answer any question. As a result, he issued some kind of judgment on any topic brought to his attention and then proceeded to defend his position with as much fervor as if it were the result of thorough intellectual syntheses. The judgment was, in effect, based only on his own minute intellectual capacity. Primitives did not use group intellectual processes; the absence of this technique impoverished both the bewildered individual and the loosely-unified society.

Intellectual progress was slow because economic and social pressures forced even the few "brilliant" thinkers to aim their thoughts at the lowest levels of the population. The condition which any mental technologist today could easily diagnose as the "stupidity syndrome" would probably have been excused by the primitives under the imposing title of "Information Overload." Many great ideas were ignored or vehemently rejected by a society which had little means for discovering and augmenting the potential of ideas. In primitive folk-culture, it was considered wise for a political candidate to avoid three-syllable words and the appearance of an interest in ideas rather than "practical matters of power and action." The root of all practicality and power in ideas and the operation of mind was not appreciated in primitive times.

Before the discovering and application of individuality controls, idea focusing techniques and mental sensitizing procedures, the major intellectual concerns of our forefathers were the analytic and inert approaches to material science

(1450-1950) and the religious and theological attempts to understand the nature of reality by understanding its Creator (350-1450). The Greek experience of philosophy was an oddity in the primitive world. While most other cultures limited their concerns to providing food and other economic necessities or battling for politico-military control, the Greek philosophers developed the ideals of moderation and the contemplative life.

Several important social developments characterize the shift from primitivism to modernity in the Mental Awakening. The first significant examples of world government, mental capacity technology, longevity engineering and the life liberation skills associated with group behavior occurred between 1950-2000.

Even the most advanced thinkers before 1950 lacked computerized data handling support. They were unable to combine creative thought with social acceptance because society had no reliable mechanism for the handling of innovations and new insights. The folk wisdom of the pre-modern periods depicted the so-called intellectuals of the age as impractical dreamers or strange individuals whose lack of ordinary social skills led them to a self-imposed isolation which works against social acceptance of innovations.

The bankruptcy of the individualism of the pre-intellectual style of human life is most clearly seen in the spectacle of death and destruction which preceded the establishment in 1992 of a world government with effective political, military and economic control over its component nations and territories. The Los Alamos conference of 1992 formalized the world organizational arrangements which had been begun in various forms as responses to the crisis of 1977. The conference was held on the site where 15 years earlier a madman's sabotage blast had detonated a huge store of nuclear weapons. The blast took only about three million lives from its primary effects of heat and shock but it loaded the earth's atmosphere with enough radioactive material to destroy within eighteen months all human life which remained exposed on earth. Whether human life could have continued indefinitely in the moon colony without support from Earth is a moot question. More than a fifth of the world's population at that time (approximately 750 million people) died from radiation sickness in the first six months following the blast. The ad hoc arrangements between the primitive nations to fight nuclear fall-out and deactivate the radioactive material in the atmosphere grew sequentially into a world amalgam of scientists and technicians, a confederation of nations to build and operate the huge disposal and atmospheric purification plants, and finally into a world military conjunction to allow the destruction of all nuclear fission weapons. Some of the weapons produced by technologically backward world sub-divisions such as Cuba and Ceylon were in danger of being detonated by the build-up of radioactivity in the atmosphere.

It is necessary to understand the primitive modes of thought in order to place these historical events in perspective. It is scarcely credible that men would donate billions of dollars to tools whose only value is in destroying people. (Note: The operations of social mind in pre-intellectual history would be a good topic for later additional research.) The primitives expended a great deal of money and effort in preparing to destroy themselves. They rationalized this activity by appealing to the principle of least parts in social affairs as they had already done in scientific analysis in physics, chemistry, etc.

Murderers were regarded as the lowest level of mental development, the least parts of humanity. All who would not be prepared to murder others must themselves be murdered and eliminated from the scene, thereby allowing the least parts to be the only parts.

From the least parts doctrine it followed that the world divisions, variously called states, nations and republics, must have the capacity to kill everyone else in the world if they were not to be destroyed or enslaved. (The primitive word "enslaved" has no completely adequate translation into the modern INTELLINGO. A loose translation is "doing something without wishing it or respecting someone without knowing why.")

Distrust of others was a very strong limitation for pre-intellectual man and extended well into the period of Mental Awakening until modern understandings of human behavior began to become widespread.

The Synthesis of 1950 - 2000

The transition to the mental period of human history came, paradoxically enough, during a crisis of anti-intellectualism and skepticism which threatened to wash away even the small intellectual base on which world thought operated before 2000.

Strongly individualistic and anti-mental attitudes characterized the period just before the universal use of intellectual therapy and social transcendence techniques by the World Government of 1992. The last quarter-century of the primitive period must have seemed more like a deterioration and breakdown of society than the birth pains of a higher level of human experience.

The rejection of intelligence and sociability found its ideal type in the "great man" interpretation of previous history. Primitive folk culture glorified the lone hero in literature of the book and screen. These characters emerged in the primitive literary epics as self-made men who made their own decisions and carried out their plans without recognition of their debt to society nor their function as a carrier of future social values.

A strong note of anti-intellectualism, or perhaps even mysticism, infected primitive emotions. Destructionist dogma was widely accepted. According to destructionism, social progress can be made only by destroying social institutions. "People are good but society is bad" ran one schizophrenic line of thought. Flights of fantasy were constructed to dignify the individual in isolation. The educational theories of John Dewey, a philosopher whose writings enjoyed popularity during and just before the transition, called for tailoring schools and other social institutions to the primitive forms preferred by hermetically-sealed individuals. He appealed to the pre-therapeutic interest patterns of the child (the least socialized human type).

Dewey's criterion for a good social institution was one in which the individual continued to find satisfaction of his interests and therefore continued to participate. Dewey's doctrine of the growth and flowering of the child neglected the soil in which growth occurs and the role of the agriculturist in determining and facilitating the proper kind of growth.

The mystical, each-man-for-himself egotism reached its peak in the YCTMN protest whose slogan was "You can't tell me nothing." The purpose of this movement was to insulate its members from any outside influence which would diminish their dignity by encouraging them to act inauthentically (by using the values and advice of others). The protestors marched with placards reading, "I am a person, not a thing; you can't tell me what to do," and "Love, Peace and Freedom." The rattlesnake flag used in a mid-primitive war between world sub-units was resurrected and its slogan, "Don't Tread on Me," was widely used.

A thought system was developed by the protestors to reject group intellectuality even in such obviously essential forms as prescribed work duties and fixed school curricula. Most work in schools and economic consortia was individual in primitive times. The possibility of joining individuals together in unified intellectual teams capable of solving higher-order problems resulted from discoveries in the period from 1950 to 1975 but was not implemented on a universal scale until after the World Union of 1992.

The thought system used by the YCTMN group was a compilation and adaptation of the doctrines of Kierkegaard, Neitzsche, Sartre and Sokolyn. Its fundamental tenet is that each individual is free and responsible, but can maintain his freedom and responsibility insofar as he appeals only to himself for guidance. Man's goal was to achieve a unity between what he is and what he wishes to be. The acceptance of any outside point of reference was considered to be a reduction in human freedom and dignity, making the individual's life false and self-alienated. The forms of outside interference which caused the greatest furor were military conscription and academic conscription. Small but vocal minorities of the protestors extended their attention to marriage conscription, housing assignment conscription, professional employment conscription and taxation conscription.

The beginning of the end of this petulant furty came in the crisis following the nuclear explosion of 1977 when it became obvious that the only result to be expected from non-compliant individuals, no matter how authentic they might be, was death by nuclear radiation.

The foundation for the Intellectual Period was laid during the Mental Awakening by, as we would expect, the most intellectual primitive institution, the school system. Schools had existed for many centuries before they began to accept their social unification function. The basic premise of equality and universality of education became prominent only in the century of 1850-1950, just before the Mental Awakening.

The sharp change in the course of world history which culminated in the quantum jump to the modern period was begun when school leaders dropped the archaic and elitist concept that the function of the schools is to prepare a small minority of the people for later activity, usually highly-paid,high-status activity. Educators began to realize that the value of their information and intellectual techniques was too great to allow them to be transmitted to the general society slowly and indirectly through students. The connection between knowledge and its applications must be rapid and accurate. The use of students to serve as the link was faulty on both counts.

"Education is too important to be left to the students and the P.T.A.", said the educators of the Awakening.

The production of information far outweighed its transmission to users. Only a small portion of transmitted knowledge was received and integrated by potential users. Another problem was the irresponsible transmission of mistaken and misleading information which had not been properly prepared for broadcast. As the educators began to take steps to solve these problems, they stumbled onto a basic phenomenon whose importance had previously been ignored.

(At this point, Ed heard the buzzing which indicated that his computowriter disc had reached its capacity. He decided to start the next disc in the morning.)

Scenario: Junior Colleges

Event #11

In 1975, a lively controversy centers on the curricula of the new public junior college system expanded in 1970 by an act of Congress to make junior colleges available within every high school district. The Junior College Act of 1970 provided huge amounts of money for construction of buildings, purchase of land, and finances teacher and administrator salaries partly from federal funds and partly from state and local funds through a complicated sliding scale tied to the value of real estate in the state and district. The Act of 1970 had originally called for all salaries and operating expenses to be paid by the federal government but opposition in President Nixon's own party caused a compromise expense-sharing plan to be worked out. The plan was devised by presidential advisors who had drafted the original version of the legislation. The motivation for presenting the bill in the first place was to win support from middle and low income voting blocks by creating an obvious program which Nixon campaigners could point to as evidence of the administration's compassion and contribution toward the nation's progress.

The whole project was a mere conjecture until President Nixon became worried by the slight economic down-turn which followed the reduction of U. S. spending on military expenses in Viet Nam and ordered his assistants to find ways of pumping large amounts of money into the economy with initial release of the money to the middle or low-income people as principal beneficiaries. The time lapse involved in building and staffing the junior colleges made this an acceptable project. That is, the initial money was poured into construction projects (with enough going for land purchases to be available as a source of power for local politicians) which caused an immediate increase in the employment of those groups which feel the pinch of economic downturn first, namely transient workers and suppliers of the construction industry.

The problems of how to staff the schools and what to teach in them seemed remote in 1970, at least remote enough to be able to be placed on a back burner until after the election of 1972. With very little strong direction from the federal government, the junior college began to come on stream after the re-election of President Nixon in 1972. The federal officials presented many regulations for the operation of the junior colleges, but with a few significant exceptions, the regulations were either never put into effect or were regarded as mere suggestions. The Nixon administration, in short, chose to allow the operating decisions to be made primarily on the local level.

The 1970 Act provided jobs in each state for a Director of Community Colleges and an assisting bureaucracy. The state directors, by and large, transferred their decision powers to local high school superintendents and boards in an effort to show some results quickly. The state directors knew that building, staffing and running the schools independently of existing educational structures would be difficult, time-consuming, irritating to local politicians, and dangerous in that they would expose the state directors to the probability of embarrassment from mismanagement, student unrest, conflicts with local power blocks, etc.

In 1975, there was a general agreement emerging that the community colleges were a big disappointment. Most of them were adjuncts to high schools, either using the same buildings or under the virtual control of the same local boards. Many influential groups were calling for changes in the curriculum, which was essentially a continuation of high school subjects, often taught by teachers who shared time between the two institutions. Local superintendents had, by and large, used their control over junior college budgets to benefit high school teachers by raising salaries generally and increasing class sizes in both institutions or by using lucrative additional assignments in the junior college as patronage plums to be handed out by a teacher's union in return for cooperation with the local school board.

Local discontent came from low and middle income parents who objected to the curricula, saying that it represented a second-class offering for second-class citizens and was in no way equal to the education provided to those students rich enough or fortunate enough to spend their freshman and sophomore years in colleges and universities not affiliated with the local school districts.

Wealthy local citizens directed their discontent mostly against the increased taxation and against the bad name being given to the locality by student rowdiness and concerted actions against the local school district.

Businessmen, who had at first welcomed the junior colleges, turned cool when they discovered that the junior college graduates had few additional job skills not possessed by high school graduates. Those businesses who had enough faith in the system to wish to influence course offerings, initiate cooperative work-study programs, and the instructional process in the hope of getting a work force better prepared for entry jobs, found that the large number of small junior colleges created a great inefficiency for those who wished to influence the junior colleges.

Colleges and universities began to question the credentials of two-year graduates and to require qualifying examinations or additional work to assure themselves that admissions standards will be maintained.

One of the most embittered voices raised against the junior college system had been heard only in the privacy of Congressional cloakrooms, state legislature lobbyist's favorite restaurants and American Legion hall festivities. The new junior college system had made Selective Service deferments available for almost all high school graduates for at least an additional two years. This had the effect of raising the average age of inductees, allegedly making our soldiers less fit and less enthusiastic about military service. Many student organizations opposed to the draft were prominent in junior colleges. The pressure for new draftees had slacked off following de-escalation in Viet Nam in 1969-70, but was increasing again as brush-fire wars in India, Africa and South America required the deployment of U.S. troops in order to honor our commitments to governments threatened by infiltration or uprisings of leftist extremists.

Magazine articles in national consumer publications had colleged the junior colleges "a bad joke played on the poor", Junior college teachers were restless, paid less than university teachers and rejected from membership or

active participation in professional societies because their connection with the junior colleges was regarded as an indication of lack of scholarliness. Junior college administrators applied no "publish or perish" pressures.

Junior college students referred to the system as "Big Brother's Babysitter", expressing their resentment as the petty harassment of rules and procedures designed to make the system run smoothly rather than to benefit students in interest-laden educational contact between themselves and their environment.

In short, the chickens of confusion, apathy and mediocrity which had been hatched when a broad-scale educational program was begun without a careful and cogent statement of curricular objectives, were now coming home to roost in the form of a first-rate educational crisis.

Two general proposed solutions were put forth.

APPENDIX C: ANNOTATED BIBLIOGRAPHY (SELECTED)

Adelson, Marvin, et. al. "Planning Education for the Future: Comments on a Pilot Study," ed. Marvin Adelson, American Behavioral Scientist, Vol. 10, No. 7 (March, 1967), 29 pp.

This issue of American Behavioral Scientist describes the attempts resulting out of an interdisciplinary seminar at U.C.L.A., to develop a plan for educational innovations in the future. The methodology, which includes the building of a Delphi, is explained in detail by the authors.

Anderson, Stanford. Planning for Diversity and Choice. Possible Futures and Their Relations to the Man-Controlled Environment. Cambridge, Mass.: The MIT Press, 1968.

The contributors in this volume come from many disciplines--economics, architecture, philosophy. No technologists are represented. Among the important topics included for discussion are:

1. Philosophical bases for utopian thinking
2. Suggested methodologies for utopian thinking
3. Building models for thinking about the future
4. Contingency planning and advocacy planning

While written primarily for a conference of architects, this book is a valuable reference for anyone interested in the methodology and uses of future thinking.

Boulding, Kenneth E. The Meaning of the 20th Century--The Great Transition. N.Y.: Harper and Row, Publishers, 1964.

Boulding discusses the 20th century as a post-civilized society, one which calls for moral, religious, asthetic changes, as well as those in our knowledge of the physical world, the nature of the family, the pattern of child-rearing, and health. He discusses, in detail, a group of traps in which man and his planet may find themselves, and which prevent their reaching post-civilization: The war trap, population trap, technological trap. Finally, Boulding advocates an "invisible college" of individuals who would apply scientific methods to "reality test" images of man and society.

Boulding, Kenneth. "Prognostics: A Guide to Present Action," Saturday Review (Feb. 10, 1968), 36-37.

This is a review of the book The Year 2000 by Kahn and Wiener, which has come to be widely read and discussed by people interested in futures. The method that Kahn and Wiener use is to describe "surprise free projections", the projection of current trends.

Projections are made in regard to world population and percapital real income growth; movement toward service and service-to-service activities; development of megalopolis; international systems. The scenarios are presented, depicting several carieties of futures.

Among the criticisms Boulding, the reviewer of this book, has are the lack of emphasis upon values, cultural, and community (the "integrative system") used to project futures.

Brickman, Wm. W. and Lehrer, Stanley (eds.). Automation, Education, and Human Values. N.Y.: School and Society Books, 1966.

This book contains a series of articles about the impact of automation on the future. Topics such as the following are considered:

1. Leisure--how much, who will be affected the most, how it can be coped with
2. The importance of the humanities and general education
3. The importance of continuing, on-the-job education for everyone
4. The impact of automation on education, and how it can best be used for instructional purposes
5. Automation and unemployment

Calder, Nigel (ed.) The World in 1984--Vol. 2. Baltimore: Penguin Books, 1965.

This is a series of articles written by specialists in various fields such as the physical sciences, international relations, humanities, psychology, education, and economics. Some of the important ideas discussed are:

1. The importance of understanding new technology
2. Values and the new technology
3. Increasing leisure and concomitant problems
4. The health and welfare of rich and poor nations--is the gap narrowing or widening?
5. The uses of technology in school and home
6. The importance of continuing education
7. Prospects for peace in the future and the role of science
8. Future problems facing N.America, S.America, Africa

At the end of this book, the editor summarizes the "surprise free" projections made by the contributors, in a series of charts.

Chase, Stuart. The Most Probable World. N.Y.: Harper and Row, Publishers, 1968.

This is a study of ten trends, and where the author believes they will lead. He suggests that some technologies will not follow a trend

prolongation curve indefinitely--but an "S" curve, in which growth will not stop completely, but the rate will level off. The trends discussed are: Total technology, population, living space, megalopolis, energy, the mixed economy, automation, the arms race, nationalism, one world--which ones are increasing (at exponential or "S" curve rates), which ones are considered to be predominantly assets, liabilities, or both. The important point is that all trends must be taken into consideration "before soaring off on one of them as conclusive for the whole complex". Finally, Chase calls for a curriculum to train future political leaders and also for a supranational agency to screen the consequences of large technological innovations before they become mass produced.

de Jouvenal, Bertrand. The Art of Conjecture. N.Y.: Basic Books, Inc., 1967.

An important work for the understanding of futures. The author carefully distinguishes between forecasts ("opinions about the future"), conjecture ("the intellectual construction of a likely future"), and futuribles ("the possible future"). He discusses various methods of forecasting:

1. Prolongation of a tendency
2. Analogy
3. The "Railway"--the direction in which events are moving
4. Causality
5. A-Priorism
6. Systems
7. Forms

--and the attributes and weaknesses of each.

This is a book which sets forth assumptions upon which future kinds of thinking can be built.

Educational Policy Research Center at Syracuse. Syracuse, N.Y.: 1968.

The Center, a joint venture of the Syracuse University Research Corporation and Syracuse University, has prepared a number of materials related to its objectives, role and organization. In addition, materials are available which describe how futures can be forecast through scenarios and the Delphi.

Educational Policy Research Center at Syracuse, 1206 Harrison Street, Syracuse, N.Y. 13210

Ewald, Jr., Wm. R. (ed.). Environment and Change--The Next Fifty Years. Bloomington, Indiana: Indiana University Press, 1966.

This book deals mainly with the role of the arts, sciences, and technology in shaping the future. Chapters most appropriate to future-methodology are:

"Faustian Powers and Human Choices: Some Twenty-First Century Technological and Economic Issues," Herman Kahn and Anthony J. Wiener, pp. 101-131: 13 basic, long-term, multifold trends, and projections are offered."

"Planning with People," Robert Theobald, pp. 182-185: Planning with people instead of planning for people. The planner must consort with people, and design environments based upon their values; ones which will lead to humanness.

Gabor, Dennis. Inventing the Future. N.Y.: Alfred A. Knopf, 1963.

The author discusses the "Trilemma" facing our civilization today:

1. Destruction by nuclear war
2. Over-population
3. The age of leisure

Only the age of leisure will find man psychologically unprepared.

Gabor advocates "piecemeal social engineering" whereby engineers adopt the method of dealing with the most urgent evils of society. This is contrasted with "utopian engineering" wherein engineers fight for the greatest good. The social inventor must first point out goals.

Finally Gabor calls for a merger between science and humanism. "We need men who will be able to invent the future and to lead us into it."

Gordon, Theodore J. The Future, N.Y.: St. Martin's Press, 1965.

This book deals with predictions of the author and others about the future. The following issues are discussed in detail:

1. Behavior control
2. Population
3. Heredity control
4. War--how it may come and some peaceful alternatives
5. Scientific breakthroughs related to increasing food supply, modifying weather and climate, constructing "anti-matter", using lasers and fiberoptice, developing new fuels and sources of energy.
6. Automation--the benefits and dangers
7. Diversions for increased amounts of leisure time

8. The morality of youth--criminal and sexual behavior patterns
9. The convergence of the economic systems of Russia and the United States
10. The growing split between Russia and China
11. The exploration of space and other planets--challenges, benefits, new scientific developments as outgrowths

The author ends on a relatively optimistic note--birth control will help control population, and will consequently ease the problems of leisure brought about by automation and with the acceptance of world law, ease the probabilities of war.

Helmer, Olaf. Social Technology. N.Y.: Basic Books, Inc., 1966.

A detailed explanation of the Delphi as devised by the author and others at the RAND Corporation. The Delphi asks experts in various areas of knowledge to respond to the probability, effectiveness, and desirability of certain events occurring. The experts then receive each others' responses, and asked to again respond to the same events, the object being to narrow the medians and interquartile ranges of such responses.

Huxley, Aldous. Tomorrow and Tomorrow and Tomorrow and Other Essays. N.Y.: Harper & Row, 1956.

In the essay which has the same title of the book, the writer discusses three other works about the future:

The Challenge of Man's Future by Harrison Brown.
The Foreseeable Future by Sir George Thomson
The Next Million Years by Sir Charles Darwin

Huxley, himself, expresses the belief that the key to mankind's future lies in population control.

Kahn, Herman. Thinking About the Unthinkable. N.Y.: Avon Books, 1965.

This book deals mainly with nuclear war and possible alternatives in regard to its probability and nature of occurrence.

Chapter 5 is of particular interest to anyone interested in future methodology. Kahn discusses, in detail, and gives various examples of scenarios and games.

Kahn, Herman and Wiener, Anthony J. The Year 2000--A Framework for Speculation. N.Y.: The MacMillan Co., 1967.

The authors discuss alternative futures, and "surprise-free" projections based upon current trends in a number of technological,

international, and social areas. Scenarios, and intervention scenarios are also used to depict possible futures and how they might be reached or/avoided.

This book is probably the widest read and most discussed of all writings on the future.

Leonard, George B. "Visiting Day 2001 A.D., "Look (Oct., 1, 1968), 37-48.

This is an excerpt from the book Education and Ecstasy. A visit to a school in the year 2001. Also a look back on American education from the 1960's to 2001. The Kennedy School provides absolute freedom of movement, as long as someone is not hurt; completely individualized instruction; special areas for stimulation of the senses (hence the title, "ecstasy").

Michael, Donald N. The Unprepared Society--Planning for a Precarious Future. N.Y.: Basic Books, Inc., Publishers, 1968.

The author gives a brief history of social-economic future planning, beginning with the New Deal and George Counts' book, Dare the Schools Build a New Social Order? The new futurists study the acts that will move society from "x" to "y" and make planning possible. Michael's main point is that th convergence of certain social and technological trends will lead to mor long-range planning, but present institutions are incapable of dealing with it. We need more data in order to predict future trends. The future is then examined in terms of its complexity, turmoil, and scarcity. Finally, Michael deals with "an approach to educating a special cadre of intellectually and emotionally highly skilled people who thereby will possess necessary if not sufficient resources to apply more wisely what we know to the long-range planning of our society."

Nisbet, Robert A. Community and Power (formerly Quest for Community). N.Y.: Galaxy Books, 1962.

Nisbet talks about "community" and the various uses the concept has had up to the present. The thesis of this book is: that modern man, living in large complex, bureaucratic society, becomes alienated when there is no group between him and the state. Nisbet calls for the utilization of small primary and voluntary groups as the intermediaries between man and society. These groups would give modern man the sense of community Nisbet claims he has lost.

Nisbet, Robert A. "The Year 2000 and All That," Commentary, Vol.45 No. 6 (June, 1968), 60-66.

Nisbet discusses man's curiosity in regard to the future from an historical perspective--that this is nothing really new; only the techniques have changed. His basic criticism of the new "futurists"

is that they assume much of the future will be "surprise free". Nisbet believes much of the significant future will be the result of Nature, Random Event, Genius, or Maniac. The present may contain the future, but how much no one can tell.

Pfeiffer, John. New Look at Education: Systems Analysis in Our Schools and Colleges. N.Y.: Odyssey Press, 1968.

The author discusses the basic concepts of systems analysis and its uses in science, government, and especially in education. An important part of the book is the discussion of designing models for education. Finally, Pfeiffer talks about the Delphi, designed by Helmer and his associates; the uses of computers in education, and simulation.

Prehoda, Robert W. Designing the Future: the Role of Technological Forecasting. Philadelphia: Chilton Book Co., 1967.

The author discusses various technological/forecasting tools used in projecting the future--such as scenarios and the Delphi. Then he goes on to discuss the economic, material, and biological applications of such techniques in bulk of the book.

Sarnoff, David. "By the End of the 20th Century", Fortune, Vol. LXIX No. 5, (May, 1964), 116-119.

The author describes what he believes to be future rapid changes in the following areas:

1. Food
2. Energy
3. Raw Materials
4. Health
5. Genetics
6. Communications
7. Travel
8. Defense
9. Air and Space

Sarnoff concludes by stating his belief that technology will release man's mind from routine drudgeries, and free it for creative thinking and solving his spiritual, social, and political needs.

Shane, Harold G. and Shane, June Grant. "Future Planning and the Curriculum," Phi Delta Kappan, Vol XLIX, No. 7 (1962), pp. 88-96.

The authors define and explain the concept of "future-planning" (procedures for anticipating and planning alternative futures, and

selection of the most desirable alternatives). They then give a capsule history of future-planning from Voltaire to H.G.Wells to RAND Corporation to PERT to present-day groups and commissions specifically established to plan futures. The authors discuss outcome values and process values of future-planning. Finally they present one approach to such planning ("educonjectures"), based upon the use of of ORPHIC techniques (Organized Projected Hypotheses for Innovations in Curriculum). This technique involves experts from education and related disciplines, and is spelled-out in detail in the article.

Silberman, Charles E. "Technology is Knocking at the Schoolhouse Door," Fortune, 74: 120-5 = (Ag., 1966).

This article discusses the increasing involvement of big business in the education market; the application of electronic technology to the improvement of education; the impermanence of knowledge in today's world and the need to prepare students for change; the need for truly individualized learning programs with the aid of computers.

Skinner, B.F. Walden Two. N.Y.: The Mac Millan Co., 1962.

Skinner outlines in novel form his vision of a future Utopia. Life in the community is based upon "scientific" or "behavioristic engineering". Individuals act out of pleasure and are reinforced by doing so, if the acts are sanctioned by the Planners of the Community. Acts not sanctioned by the Planners are not punished but gradually extinguished. Education for children is individual, each child advancing at his own pace. Grades are non-existent, as are specific subjects. Education takes place in workshops, laboratories, and fields. Education, like life in Walden, is based upon principles or behavioristic psychology.

Stulman, Julius. Evolving Mankind's Future. Philadelphia: J.B. Lippincott Co., 1967.

This book puts forth the author's ideas of a "World Institute". The institute would be an interdisciplinary, intercultural agency which would bring together scientists, social scientists, humanists, educators, and others to solve the major human problems of the world. The World Institute would be independent of any nation, rich or poor, Capitalist or Communist, and its findings, though purely advisory, would benefit all nations.

Ways, Max. "The Era of Radical Change," Fortune, Vol LXIX No. 5 (May, 1964), 113-115+.

The author distinguishes between gradual change, revolution and major disruption, rapid change, and radical change.

He speaks of the need to build links between new patterns of change and enduring truths. He calls these intermediary links the "middle tier". The tier would operate between the government and the isolated individual, and would help the individual cope with radical change. Links might take the form of:

business corporations
local government services
voluntary organizations
labor unions
philanthropic foundations
universities

Young, Michael. The Rise of the Meritocracy. Baltimore: Penguin Books, 1961.

This book describes British society as the author envisions it in the year 2033. Society then will not be divided between rich and poor, but between the intelligent and non-intelligent. The meritocrary, arising after society has insured all people of ability the opportunity to succeed, would be fluid in the sense that a child could rise above or below his father--but would be rigid in the sense that the non-intelligent class would not have anyone capable of representing them or fighting for its interests.

Zacharias, Jerrold R. "Planning for Education," Science, Engineering, and the City. A Symposium Sponsored Jointly by the National Academy of Engineering and the National Academy of Sciences (Washington, D.C.: National Academy of Sciences), pp. 17-22.

Zacharias advocates the involvement of people for whom educational plans are made in the planning process. He believes in beginning the teaching of reading from a child's experiences first, and thus building up an interest in things to read about.

Finally Zacharias recommends large experimental school systems, based upon different ideas about what education should be like, and involving $10 million planning money for an eventual $500 million expenditure.

APPENDIX D: CERLI "Future" Bibliography
1/17/69

Books

Adelson, Marvin, ed. Planning Education for the Future: Comments on a Pilot Study

Anderson, Stanford, ed. Planning for Diversity and Choice: Possible Futures and Their Relations to the Man-Controlled Environment

Beckwith, Burnham P. The Next 500 Years

Bennis, Warren et al. Planning of Change

Boulding, Kenneth E. The Meaning of the 20th Century

Bowen, Howard R. and Mangum, Gorth, eds. Automation and Economic Progress

Bower, Eli M. and Hollister, Wm. G., eds. Behavioral Science Frontiers in Education

Burdick, Raymond. Danny Doodle

Calder, Nigel, ed. The World in 1984

Center for the Advanced Study of Educational Administration. "Helping Teachers Improve Classroom Group Processes"

Chase, Stuart. The Most Probable World

Daedalus. Toward the Year 2000

Douglass, Harl R. Trends and Issues in Secondary Education

Education U. S. A. Computers: New Era for Education?

Eurich, Alvin. Campus 1980

Ewald, William R., Jr. Environment and Change: The Next 50 Years

Ewald, William R., Jr. Environment and Policy: The Next 50 Years

Fabun, Don. The Dynamics of Change

Faltermeyer, E. K. Redoing America: A Nationwide Report on How to Make Our Cities and Suburbs Livable

Flechtheim, Ossip K. History and Futurology

Goodall, Leonard E. The American Metropolis

Gordon, Theodore J. The Future

Goulet, Richard R., ed. Educational Change: The Reality and the Promise

Gross, Neal and Herriott, Robert E. Staff Leadership in the Public Schools

Hadden, Jeffrey K., et al. Metropolis in Crisis: Social and Political Perspectives

Halacy, D. S., Jr. Cyborg: Evolution of the Superman

Havinghurst, R.J. Metropolitanism: Its Challenge to Education

Heer, David M. Society and Population

Helmer, Olaf. Social Technology

Isenberg, Irwon, ed. The City in Crisis

de Jouvenal, Bertrand. The Art of Conjecture

Kahn, Robert and Cannell, Charles. The Dynamics of Interviewing

Kahn, Herman and Wiener, A.J. The Year 2000

Katz, Daniel and Kahn, Robert. The Social Psychology of Organizations

King, Edmund J. Comparative Studies and Educational Change

Lippitt, Ronald. Dynamics of Planned Change

Luszki, Margaret B., et al. Diagnosing Classroom Learning Environments

Michael, Donald N. The Next Generation

Miller, Richard I. Perspectives on Educational Change

Morphet, E.L. and Ryan, C. O. Designing Education for the Future, V. 1, 2, 3, and 4

Morris, William. News from Nowhere..or...An Epoch of Rest

Mumford, Lewis. The Urban Prospect

Myrdal, Gunnar. Beyond the Welfare State

N. E. A. Education in a Changing Society

Nam, Charles B. Population and Society

Ontario Institute for Studies in Education. Emerging Strategies and Structures for Educational Change

Platt, John R. The Step to Man

Prehoda, Robert W. Designing the Future: The Role of Technological Forecasting

Ruzic, Neil P. The Case for Going to the Moon

Schon, Donald A. Technology and Change: The New Heraclitus

Skinner, B.F. Walden Two

Stulman, Julius. Evolving Mankind's Future

State of Illinois Task Force on Education. Education for the Future of Illinois: Digest of Study

Taylor, Gordon R. The Biological Time Bomb

Theobald, Robert, ed. Dialogue on Education

Theobald, Robert, ed. Dialogue on Technology

Wall Street Journal. Here Comes Tomorrow, Living and Working in the Year 2000

Warner, S. Bass, Jr., ed. Planning for A Nation of Cities

Watson, Goodwin, ed. Change in School Systems

Watson, Goodwin, ed. Concepts for Social Change

Young, Louise B., ed. Population in Perspective

-----. Education and Technology in the 21st Century

Periodicals

Careers Today

Current

Education and Urban Society

Change (on order)

The Futurist

Journal

Main Currents in Modern Thought

School and Society

Books on order

Brown, Harrison. The Challenge of Man's Future

Brown, Harrison, et al. The Next Hundred Years

Gabor, Dennis. Inventing the Future

Hutchings, Edward, ed. Scientific Progress and Human Values

-----. Toward the Year 2018

APPENDIX E: SELECTED COMPILATIONS OF DATA

LEADING UNITED STATES UNIVERSITY LIBRARIES

University	National Rank	Number of Volumes in Thousands on June 30, 1965
Harvard	1	7,445
Yale	2	4,826
University of Illinois	3	3,888
University of Chicago	9	2,406
Indiana University	14	1,771
Northwestern University	18	1,709
University of Wisconsin	19	1,635

5 of the 20 largest libraries are in our region and two of them in the Chicago metropolis

NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD CERTIFICATES BY TYPE OF PREPARATION, 1967

	Illinois	Indiana	Michigan	Wisconsin	Total In Our Region
Total Elementary	4,177	2,189	4,202	2,169	12,737
Total Secondary	6,423	3,858	6,39[illegible]	2,823	19,501
Secondary Subjects					
Agriculture	116	38	27	57	238
Art	314	147	330	165	956
Business Education	506	246	381	129	1,262
Distributive Educ.	-	1	39	-	40
English & Lang.Arts	1,197	686	1,258	535	3,676
Foreign Language	415	263	359	124	1,161
Home Economics	212	193	253	178	836
Industrial Arts	225	166	237	317	945
Mathematics	535	379	504	206	1,624
Music	318	207	268	151	944
Physical & Health Ed.	786	584	550	247	2,167
Natural & Physical Sciences	430	366	556	272	1,624
Social Studies	1,233	579	1,480	398	3,690
Trade, Industrial, Technical	70	2	50	25	147

Appendix:

EXPENDITURES FOR CHICAGO PUBLIC SCHOOLS, 1966-67

Total Current spending	$384,203,000
Per average daily membership	$521
Per average daily attendance	581
Percent of current spending from federal funds (Fiscal Year 1967)	7.7%
Total Federal Funds	$ 29,583,631

Elementary & Secondary Education Act Grants

Title I	$25,165,115
Title II	1,802,425
Title III	1,434,458
Title IV	909,427
Total	$29,311,425

CHICAGO PUBLIC SCHOOLS, SIZE INDICATORS

Number of Students

	Enrollment	School-Age Population (5-17)
1965	542,983	792,000
1970	598,000	861,000
1975	611,000	871,000

Non-White Enrollment

1965	282,400
1970	362,400
1975	396,900

Non-White Enrollment As A Percent of Total Enrollment
1965-66: 52%

Percent of Negro elementary students in schools
90-100% Negro 1965-66: 89.2%

Percent of White elementary students in schools
90-100% White 1965-66: 88.8%

Number of Classroom Teachers, Fall, 1966

Elementary	14,294
High School	6,503
Total	20,797

Elementary Teachers

White	9,036
Negro	5,181

ENROLLMENTS OF CHICAGO SCHOOLS, 1966-67

	Number of Schools
Elementary Enrollments	
Less than 500	57
500 - 999	203
1,000 - 1,499	136
1,500 - 1,999	30
2,000 - 2,499	13
2,500 or more	1
Total -	440
High Schools	
Less than 1,000	1
1,000 - 1,999	10
2,000 - 2,999	21
3,000 - 3,999	11
4,000 - 4,999	1
5,000 or more	2
Total -	46
Vocational High Schools	
Less than 1,000	7
1,000 - 1,999	5
2,000 - 2,999	2
3,000 - 3,999	1
Total -	15

PERCENTAGES OF ELEMENTARY SCHOOL PUPILS ENROLLED IN NON-PUBLIC SCHOOLS IN STANDARD METROPOLITAN STATISTICAL AREAS, 1960

City	Percent	City	Percent
Green Bay	54.5	Peoria	14.8
Milwaukee	36.7	Rockford	12.7
Chicago-Gary	32.4	Muskegon	12.0
Kenosha	31.1	Kalamazoo	11.5
Racine	31.0	Terre Haute	10.6
Fort Wayne	30.9	Champaign-Urbana	9.8
Grand Rapids	28.2	Decatur	9.4
Springfield	24.6	Muncie	3.5
South Bend	23.6	(This list is all cities of our region in the Census listing of 220 SMAs)	
Evansville	21.9		
Madison	19.9		
Indianapolis	15.9		